GIANT CANADA GOOSE RESTORATION

Giant Canada geese (*Branta canadensis maxima*) nested throughout Iowa in the 1800's but were extirpated from the state by 1907 as a result of habitat destruction and unregulated subsistence hunting (Hanson 1965, Bishop 1978). The Iowa Conservation Commission, now the Iowa Department of Natural Resources (IDNR), initiated a giant Canada goose restoration program in 1964 with the goal of restoring giant Canada geese to their former nesting range in Iowa (Bishop and Howing 1972). The initial restoration strategy consisted of having clipped geese reproduce in pens that were surrounded by large areas that were closed to Canada goose hunting. Initially, 16 pairs of pinioned giant Canada geese, whose origins could be traced to geese or eggs taken from the wild in northern Iowa, southern Minnesota, and South Dakota, were placed in a 14-acre pen on the Ingham Lake Wildlife Management Area (WMA) (Fig. 11.1) (Bishop and Howing 1972). Goslings were initially wing-clipped to increase numbers of reproductive captive geese. To protect free-flying geese, all public and private lands in a 120 mi^2 area around Ingham Lake were closed to Canada goose hunting in 1967 (Table 11.1). The first nest of a free-flying goose was found on East Slough near Ingham Lake in 1967.

Using the same procedure, and geese from the Ingham flock, new flocks were started on the Smith Slough, Hogsback and Rice Lake WMA's in northern Iowa during 1971-72 (Bishop 1978). During 1977-79, flocks were also started at Rathbun Reservoir, Bays Branch, and Lake Icaria WMA's in southern Iowa. To accelerate growth of the Rathbun flock, 275 and 1,717 Canada geese were translocated from Toronto, Ontario, to Rathbun Reservoir and surrounding farm ponds in 1980 and 1981, respectively. Additional flocks were started during 1980-90 at Red Rock Reservoir in central Iowa, Badger Lake WMA near the Missouri River, and Green Island WMA on the Mississippi River (Fig. 11.1) (Zenner and LaGrange, 1998). Flightless wild giant Canada geese were also translocated to the Lake Sugema Reservoir (1992-98), Big Marsh WMA (1994-99), Sweet Marsh WMA (1994-96), 3-mile Lake (1995-99) and Forney Lake WMA (1996-98) after closing large areas around these WMA's and reservoirs to Canada goose hunting. In 2000, 15 areas were closed to Canada goose hunting, ranging in size from 18-240 mi^2.

Table 11.1 Initial and present size ($mi.^2$) of areas closed to Canada goose hunting around restoration sites, 1967-2000.

Restoration Site	Year Estab.[1]	Size	
		Initial	Present
Ingham Lake	1967	120	18
Smith Slough	1971	63	20
Hogsback	1971	57	33
Rice Lake	1972	113	28
Rathbun	1977	2	23
Bays Branch	1978	150	26
Lake Icaria	1979	88	45
Red Rock	1981	3	155
Badger Lake	1987	32	182
Green Island	1990	39	39
Lake Sugema	1992	322	240
Big Marsh	1994	68	68
Sweet Marsh	1994	130	130
Three-mile Lake	1995	69	69
Forney Lake	1996	66	66

[1]Year the closed area was established.

To accelerate the expansion of nesting Canada geese into unoccupied habitat, as well as alleviate goose depredation complaints, the IDNR translocated 18,600 geese to 38 sites during 1983-99. Flightless goslings and adult geese, in a 9:1 ratio, were moved to most

sites prior to 1995. Beginning in 1995, goslings captured in the Twin Cities metropolitan area of Minnesota were also released at several sites across the state.. Geese were not translocated to urban sites despite requests to do so in some cases. Neck-collar observations of translocated geese confirmed that successful nesting occurred within 3 years at most release sites.

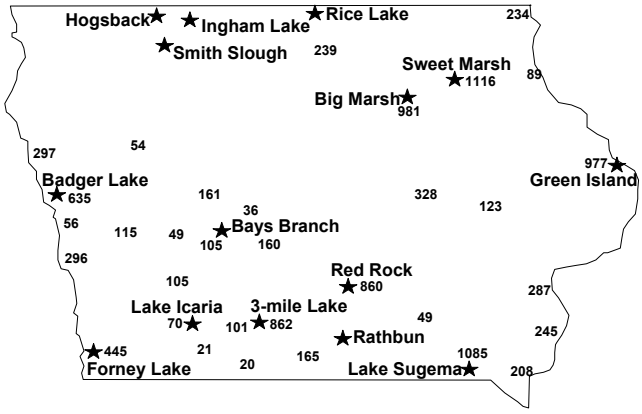
Estimates of Iowa's giant Canada goose population are made annually. Geese are counted by IDNR personnel from the ground during April and May on all major WMA's and estimates of geese on private lands are obtained by direct observation or consulting landowners. Goose production is estimated by counting goslings in mid-late June. These estimates indicate that Iowa's giant Canada goose population grew at average annual rates of 25%, 18%, 15%, 22%, and 4% during 1972-81, 1982-86, 1987-91, 1992-96 and 1997-2000 respectively (see Table 4.2 and Fig. 4.4).

No giant Canada goose were found nesting in the wild in Iowa between 1907 and 1967 when a wild Canada goose's nest was found near Ingham Lake. In 1975, giant Canada geese nested in 8 counties in northern Iowa. By 1985, they nested in 55 of Iowa's 99 counties. In 1993, Canada geese nested in all Iowa counties. The highest densities of nesting pairs continue to be found on the natural prairie wetlands in northwest and northcentral Iowa.

Complaints of goose activities and depredations began in the late 1970's. Most depredations have involved flightless geese, both goslings and adults, grazing on newly germinated crops. Only a few urban goose depredation or nuisance situations have developed. In 1982, a depredation control program was implemented using IDNR labor and materials. Numbers of complaints in northern Iowa peaked in 1986, declined in the late 1980's, but rose again in the mid 1990's and declined in recent years (Zenner and LaGrange 1998). In addition to technical assistance, IDNR personnel attempt to help alleviate depredation situations using 7 practices: 1) permanent fences with standard woven wire, 2) temporary fences of 2-3 ft high chicken wire supported by electric fence posts, 3) lure crops, 4) scare devices, 5) land acquisition, 6) translocation, and 7) reducing the sizes of areas closed to Canada goose hunting.

In 1996, a special 2-day early September Canada goose season was opened in the north waterfowl-hunting zone. This special harvest opportunity continued through 1999 with the area opened to hunting in 1997 and thereafter restricted to the north zone west of state highway 63, excluding the Big Marsh WMA. Translocating geese did not reduce depredations on a regional basis, but it did appear to reduce complaints and population growth on wetlands where geese were removed annually.

Figure 11.1 Locations of giant Canada goose flocks and



numbers of translocated geese by release site, 1964-96.

Canada geese have been banded annually at all restoration sites during late June and early July. During 1980-89, 9,666 Canada geese (status code 300) were banded in the Northwest (4,295), Rice Lake (3,313), Bays Branch (733), Rathbun (1,028), and Lake Icaria (297) flocks. Mean annual direct recovery rates of giant Canada geese banded in the Northwest, Rice Lake, Bays Branch, Rathbun, and Lake Icaria flocks during 1980-89 were 0.052, 0.018, 0.012,

0.046, and 0.005, respectively (Zenner and LaGrange 1998). Mean annual direct recovery rate for 2,577 (status 200) geese translocated between 1983-88 was 0.056. Iowa goose hunters accounted for the majority of reported recoveries of giant Canada geese banded in Iowa, but 45% of the recoveries also occurred outside the state (LaGrange and Zenner 1998). Minnesota and Missouri goose hunters reported 22% and 11% of these recoveries, respectively.

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